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Giant tongue lipoma

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ABSTRACT

Lipomas are the most common soft tissue mesenchymal neoplasms are uncommon in the oral and maxillofacial region. Oral lipomas usually exhibit slow asymptomatic growth and are less than 20 mm at their largest diameter. A 71-year-old man was referred to our regional oral and maxillofacial department by a dentist after noticing an asymptomatic tongue swelling. Examination and further radiographic and histological investigations revealed a large tongue lipoma which had been present for over three years. Initially it was decided to keep this benign lesion under review. However its relatively rapid growth over the next six months started to affect his speech, eating and airway and was subsequently removed surgically under general anaesthetic. This unusual case report documents the presentation, diagnostic considerations and treatment of this lipoma. It also highlights the important role clinicians have in detecting and investigating or referring any abnormal pathology.

1. Initial presentation

A 71-year-old man was referred urgently by a dentist to our regional oral and maxillofacial department after examining him for the first time. The letter described a large left sided tongue swelling approximately five times the size of the right. Although not troublesome the patient complained it occasionally slurred his speech and was catching on his teeth while eating. The patient was aware it had been present and growing in size for over three years. Medically he had hypertension that was controlled by Amlodipine but was otherwise fit and well with no known allergies. On examination a large, firm, non-pulsatile sub mucosal mass was evident (Fig. 1). His dentition was well maintained and he had no sensory defects, weight loss, swallowing difficulties or cervical lymphadenopathy.

2. Investigations

A magnetic resonance imaging (MRI) scan was requested but because of the patients' claustrophobia a computerised tomography (CT) scan was performed (Fig. 2 a, b). This showed a well-defined fat density mass lesion measuring approximately 57 mm anterioposterior x 40mm medial lateral x 26mm craniocaudal in the left side of the tongue. This extended posteriorly into the base and was superior to the left genioglossus muscle and lingual artery. It was confined to the sublingual space with no deep extension to the mylohyoid or bone involvement.

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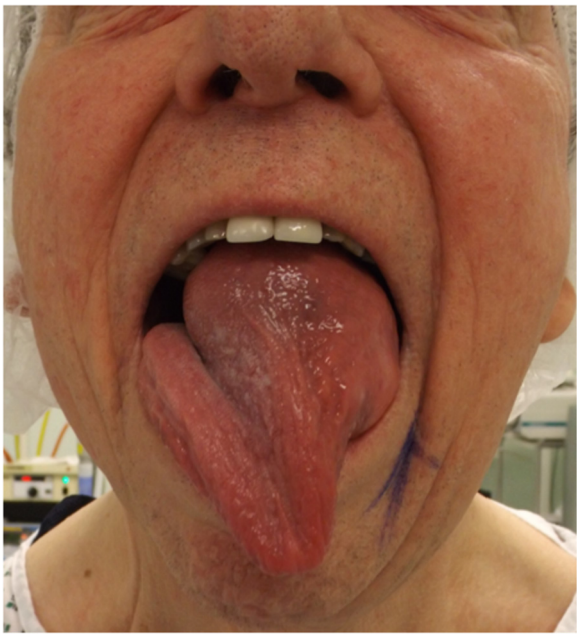

Fig. 1. Photograph of the tongue.

Differential diagnoses included granular cell tumours, neurofibromas, traumatic fibromas, haemangiomas, lymphangiomas, rhabdomyomas and salivary gland lesions (mucocele and mixed tumours) [1].

A punch biopsy under local anaesthetic was then performed for histopathological analysis. Microscopically the mucosa had parakeratosis, fibrosis, mild basal cell hyperplasia and no obvious dysplasia or inflammation. White soft tissue analysed showed sheets of packed mature adipocytes, consistent with a diagnosis of lipoma. No mitotic activity or atypia was seen. A diagnosis of lipoma was made. Histologically classic lipoma is the most common but variants include spindle cell lipoma, pleomorphic lipomas, fibrolipomas, chondroid lipomas, intramuscular or infiltrating lipomas, angio lipomas, salivary gland lipomas, myxoid lipomas and atypical lipomas ([2–4]).

3. Treatment

Initially it was decided to keep this benign lesion under review largely because of its asymptomatic nature and the risk of a functional defect and potential surgical morbidity if operated on.

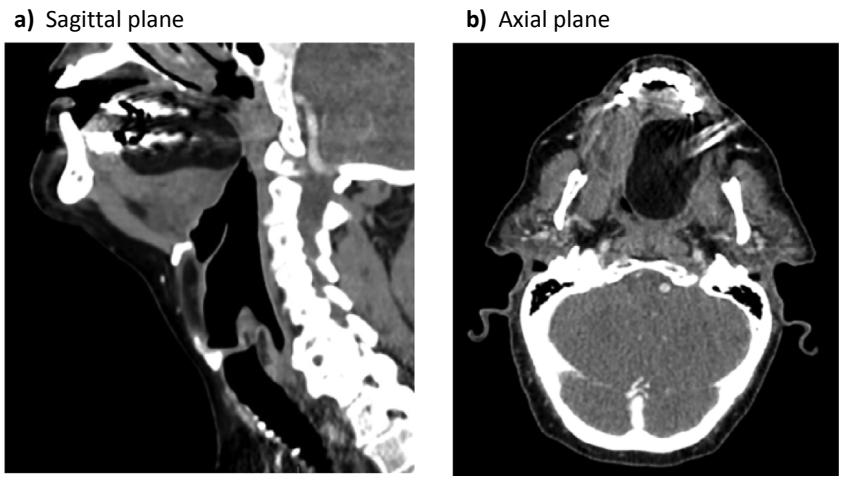

Fig. 2. CT scan of the head and neck showing an ovalar-shaped mass with distinct margins.

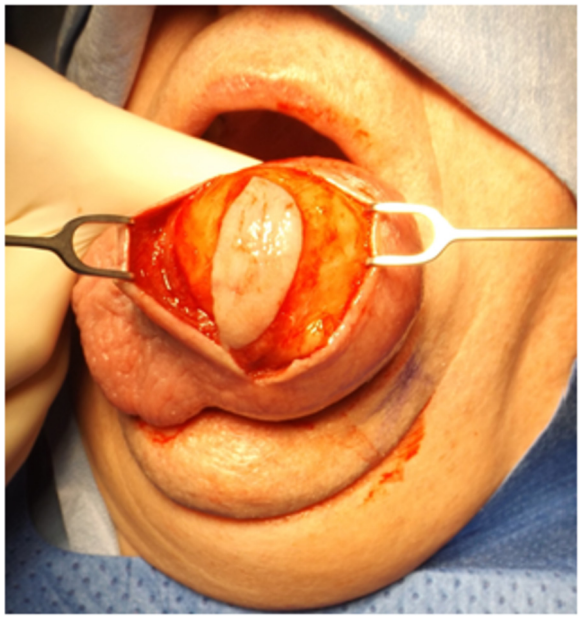

Fig. 3. Intraoperative photograph.

After a six month review this lipoma increased in size and was significantly affecting speech and swallowing. The patient and his wife also had concerns regarding his airway particularly at night when sleeping. It was subsequently decided to remove or debulk it under general anaesthesia (GA) and nasotracheal intubation. By using an ellipse incision on the dorsum of the tongue and normal mucosa, blunt and sharp dissection (Fig. 3) was used to excise the lipoma in whole (Fig. 4). Intravenous tranexamic acid and corticosteroids were used intraoperatively and haemostasis was achieved using diathermy and primary suture closure (Fig. 5). After an overnight stay he was discharged with analgesia. Chlorhexidine and Benzydamine Hydrochloride mouthwash were also prescribed for oral hygiene [5,6] and to reduce discomfort [7,8] and a review appointment was arranged.

The definitive resection report confirmed a diagnosis of a non-encapsulated lipoma composed of sheets of packed adipocytes variously separated by thin fibrous septa. Muscle fibres and large vessels were incorporated within the periphery of the tumour.

4. Discussion

Previous studies have reported lipomas are the most common soft tissue mesenchymal neoplasms [2,3] and are uncommon in the oral and maxillofacial region [2–4]. 1–4% affect the oral cavity and represent 0.1–5% of all benign tumours of

Fig. 4. Resected lipoma.

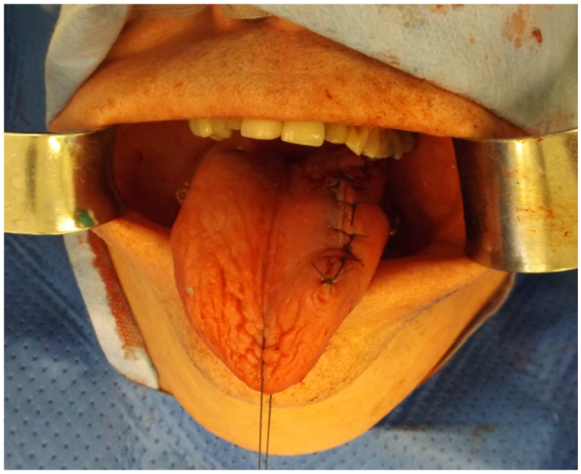

Fig. 5. Post-operative photograph.

the mouth [2]. Oral lipomas exhibit slow asymptomatic growth [2–4] and are most frequently diagnosed at the mean age of 50–62 years [4]. Some reports show a higher prevalence in males [3]. In decreasing order of frequency they occur in the parotid region, buccal mucosa, lip, tongue, submandibular region, palate, floor of mouth, and vestibule [3]. What makes this case more unusual is its size and relatively rapid increase in size over 6 months. Most lipomas on the body are less than 50mm and oral lipomas are less than 20 mm at their largest diameter [9].

In this patient it was not possible to get an MRI. Claustrophobia is a known complication and disadvantage of MRI scans. Although dental amalgams degraded the image, the CT scan was adequate. In other cases pharmacological sedation, hypnosis, and other relaxation techniques have been proposed to enable completion of an MRI scan [10].

The local anatomy of this lesion is important because of the proximity of the lingual nerve and artery and more posteriorly the glossopharyngeal nerve. Complete removal versus de-bulking and future regrowth had to be taken into account due to the risk of leaving a non-vascularised, non-functional tongue.

The use of tranexamic acid and corticosteroids are beneficial in reducing postoperative bleeding and swelling due their antifibrinolytic [11,12] and anti-inflammatory [13] properties respectively. Swelling of the tongue because of haemorrhage and bleeding into the sublingual and submaxillary spaces postoperatively causes elevation of the tongue and floor of the mouth. Subsequent airway obstruction is potentially a fatal complication which could necessitate a surgical airway such as a temporary tracheostomy [14]. An overnight stay and monitoring should always be considered following tongue surgery. On review there was a marked improvement in his speech, swallowing and airway.

5. Conclusion

Early presentation and diagnosis of lesions is important. Whilst this patient was a regular attender to his normal dentist, it was only when seen by another the decision to refer was undertaken. This case highlights that although rare, lipomas in the tongue can grow to a considerable size and be associated with functional deficits. In those with a clear plane between lipoma and intrinsic tongue muscle, excision can be relatively uncomplicated with excellent outcomes.

Declaration of interests

We have no conflicts of interest.

Ethics statement/confirmation of patients' permission

No ethical approval was required. We obtained the patient's consent for publication of the material used.

References

[1] Regezi JA, Sciubba JJ, Jordan RCK. Oral pathology: clinical pathologic correlations. sixth ed. St. Louis, Mo: Elsevier/Saunders; 2012.
[2] Fregnani ER, Pires FR, Falzoni R, Lopes MA, Vargas PA. Lipomas of the oral cavity: clinical findings, histological classification and proliferative activity of 46 cases. Int J Oral Maxillofac Surg 2003;32(1):49–53.
[3] Furlong MA, Fanburg-Smith JC, Childers EL. Lipoma of the oral and maxillofacial region: site and subclassification of 125 cases. Oral Surg Oral Med Oral Pathol Oral Radiol Endod 2004;98(4):441–50.
[4] Manor E, Sion-Vardy N, Joshua BZ, Bodner L. Oral lipoma: analysis of 58 new cases and review of the literature. Ann Diagn Pathol 2011;15(4):257–61.
[5] Richards D. Chlorhexidine mouthwash more effective than dentifrice or gel. Evid Base Dent 2015;16(2):59.

[6] Fomete B, Saheeb BD, Obiadazie AC. A prospective clinical evaluation of the effects of chlorhexidine, warm saline mouth washes and microbial growth on intraoral sutures. J Maxillofac Oral Surg 2015;14(2):448–53.
[7] Matthews RW, Scully CM, Levers BG, Hislop WS. Clinical evaluation of benzydamine, chlorhexidine, and placebo mouthwashes in the management of recurrent aphthous stomatitis. Oral Surg Oral Med Oral Pathol 1987;63(2):189–91.
[8] Turnbull RS. Benzydamine Hydrochloride (Tantum) in the management of oral inflammatory conditions. Journal 1995;61(2):127–34.
[9] Ponce JB, Ferreira GZ, Santos PS, Lara VS. Giant oral lipoma: a rare entity. An Bras Dermatol 2016;91(5 suppl 1):84–6.
[10] Eshed I, Althoff CE, Hamm B, Hermann KG. Claustrophobia and premature termination of magnetic resonance imaging examinations. J Magn Reson Imag : JMRI 2007;26(2):401–4.
[11] Dunn CJ, Goa KL. Tranexamic acid: a review of its use in surgery and other indications. Drugs 1999;57(6):1005–32.
[12] Murphy GR, Glass GE, Jain A. The efficacy and safety of tranexamic acid in cranio-maxillofacial and plastic surgery. J Craniofac Surg 2016;27(2):374–9.
[13] Dodson TB. Corticosteroid administration in oral and orthognathic surgery. Evid Base Dent 2011;12(2):49–50.
[14] Piper SN, Maleck WH, Kumle B, Deschner E, Boldt J. Massive postoperative swelling of the tongue: manual decompression and tactile intubation as a life-saving measure. Resuscitation 2000;43(3):217–20.